

## SECTION 2323: FLOOD HAZARD AREAS

The intent of the regulations in this Section is to promote public health, safety, and general welfare and minimize public and private losses due to flood conditions.

1. Flood hazard areas shall be treated as overlay districts, which shall:
  - a. Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion, or in flood heights or velocities.
  - b. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.
  - c. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters.
  - d. Control filling, grading, dredging, and other development which may increase erosion or flood damage.
  - e. Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.
2. This Section shall apply to all land which is depicted on the Flood Hazard Boundary Map/Flood Insurance Rate Map 260161B dated June 1, 1977 as determined by the Federal Insurance Administration. Any map amendments are hereby adopted by reference, and Flood Hazard Districts are overlay Districts.
3. All new construction and substantial improvement to structures shall be constructed so that the lowest floor, including basements, for residential structures shall comply with Section 327 of the Michigan Residential Code or for non-residential buildings shall comply with Section 1612 of the Michigan Building Code. [amended 7/02]

Any new and replacement water systems and sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the system into flood waters. On-site waste disposal systems are to be located to avoid impairment to them, or contamination from them during flooding.
4. The degree of flood protection required by this Section is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Section shall not create liability on the part of the City of Muskegon or by any officer or employee thereof for any flood damages that result from reliance of this Section or any administrative decision lawfully made thereunder.
5. When base flood elevation data has not been provided in accordance with Item 3, above, then the Zoning Administrator, shall obtain, review, and reasonably utilize any base flood elevation data available from a Federal, State, or other source.

6. Responsibilities of the Zoning Administrator shall be as follows:
- a. Notify adjacent communities and the Michigan Department of Natural Resources prior to any alteration or relocation of watercourse, and submit evidence of such notification to the Federal Insurance Administration.
  - b. Obtain necessary engineering analysis to assure that the flood-carrying capacity with the altered or relocated portion of said watercourse is maintained.
  - c. The Zoning Administrator shall review the proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State Law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.
  - d. For the purpose of the determination of applicable flood insurance risk premium rate, the Zoning Administrator shall:
    - 1) Obtain the elevation (in relation to mean sea level) of the lowest habitable floor (including basement) of all new or substantially improved structures, and determine whether or not such structures contain a basement.
    - 2) Obtain from a Registered Professional Engineer or Architect, certification that the flood-proofing methods are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood so that the structure is watertight to the base flood level.
    - 3) Maintain a record of all such information.
7. Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the Zoning Administrator shall make the necessary interpretation. The person contesting the location of the boundary shall be given reasonable opportunity to appeal the interpretation as provided in this Ordinance.

No new construction, substantial improvements or other development (including fill) shall be permitted within the zones A1-30 of the City's Flood Insurance Rate Map (FIRM), unless it is demonstrated to the City Commission and/or Zoning Administrator that the cumulative effect of the proposed development will not increase the water surface elevation of the base flood more than one (1) foot at any point within the City.